



# Space Communications and Data Systems



## Support to MDEX Proposals

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# Agenda

- Space Communication and Data System Goals
- Services Provided
- Customer Mission Support
- Consolidated Space Operations Contract
- Service Prices
- Support to the Proposal Process
- Conclusion



# SCDS Goals

- The SCDS is a multi-Enterprise integrated program that provides support to NASA's Enterprises and external customers with space communications and data systems services that are responsive to customer needs in the most cost effective manner for the agency
- Transition of services to commercial providers to the extent feasible and where cost effective
- Performs infrastructure upgrade and replenishment efforts necessary



# Services Provided

## Standard Services

- Mission Services
  - Flight Operations
  - Data Processing
  - Flight Dynamics
- Data Services
  - Ground Network
    - » NASA & Commercial Networks
  - Space Network
  - Deep Space Network\*
  - Range Services
  - NASA Integrated Services Network\*

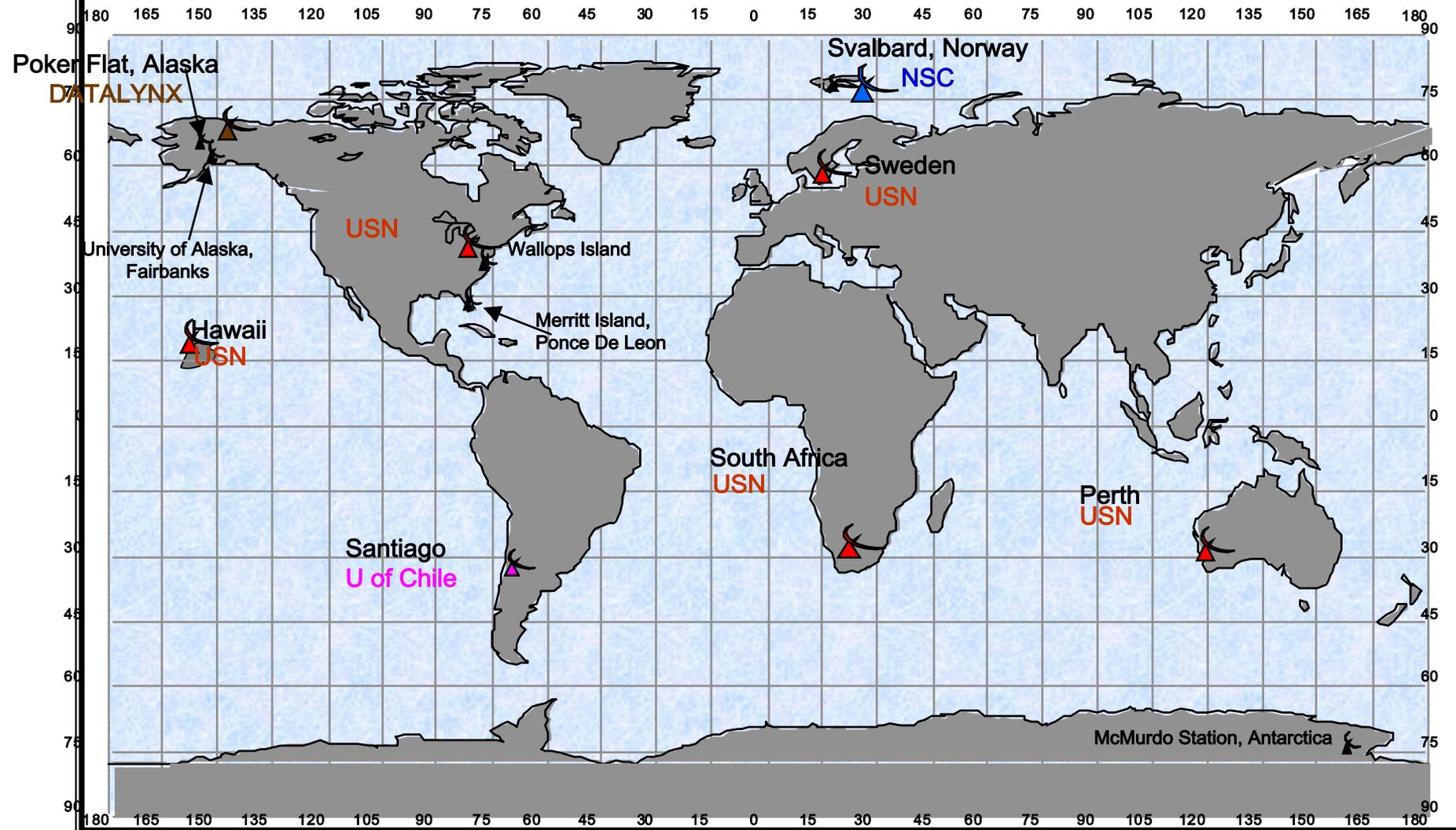
\*Supplied by JPL and MSFC

## Service Integration & Management

- End-to-end Mission Integration
  - Mission Operations Integration
  - Network Scheduling
  - Data delivery
    - » Quality of Service levels
    - » Experience and proven performance
    - » User service metrics
- Customer-centric Approach
  - One-stop shop
  - Standard Services
    - » Published prices
  - Single point of contact



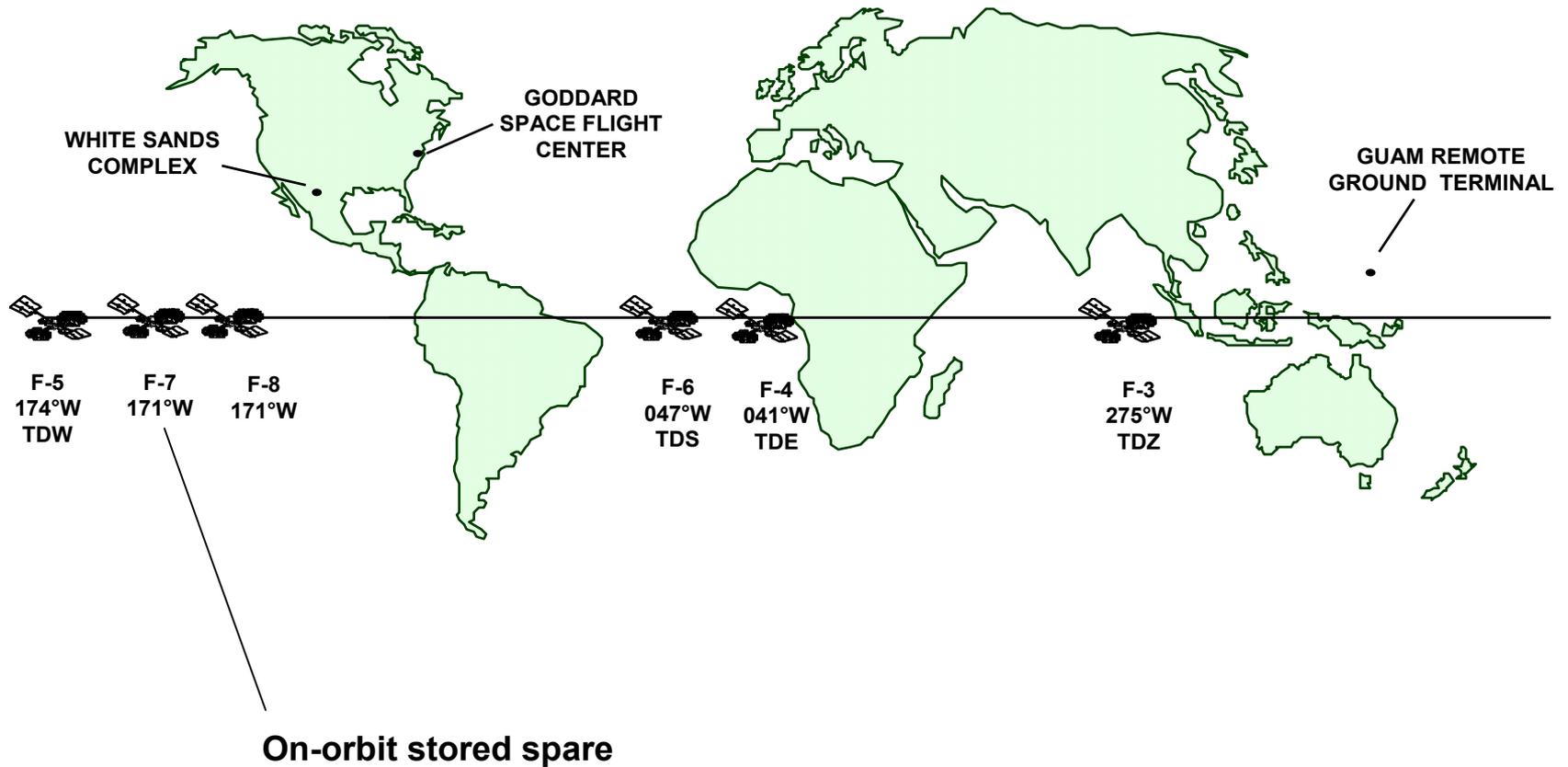
# Ground Network





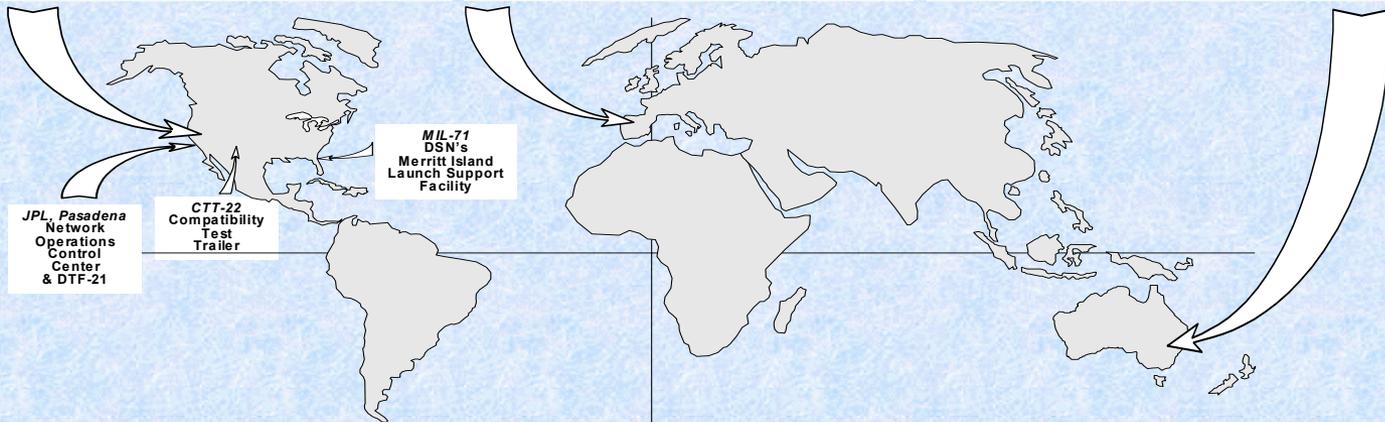
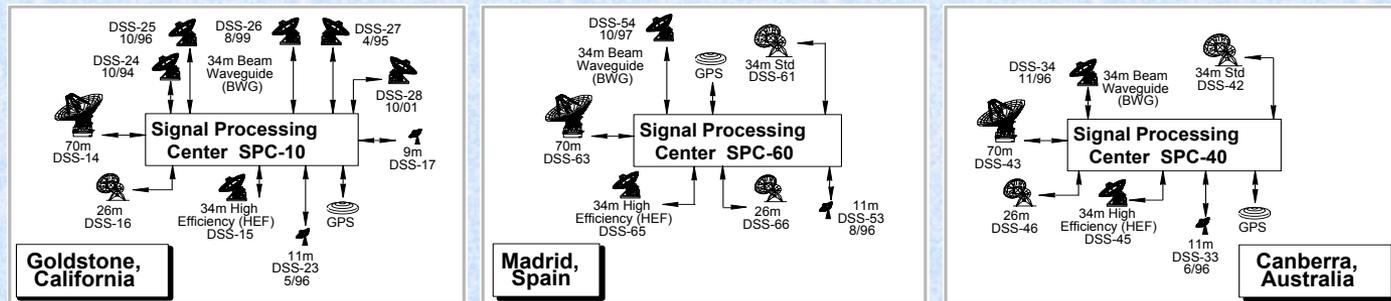
# Space Network

## TDRS Constellation





# Deep Space Network





# Mission Support

Operations →

**Preformulation**

**Formulation**

**Approval**

**Implementation**

- IMDC Mission Advisors
- Operations Concepts
- Spectrum Guidance
- Service Trades
- ROM Cost Estimates

Completed PSLA

- Frequency authorization starts
- MCM assignment
- PSLA development
- Mission Planning
- Service Trades
- Retirement Planning

- Required development, tests, etc.
- Operational Frequency authorization

Launch & Checkout

- Operational
- Launch & early orbit
  - Routine on-orbit
  - Anomaly resolution
  - Final retirement planning
  - Frequency authorization maint.

End-of mission retirement



# Consolidated Space Operations Contract (CSOC)

- Services are primarily provided via the CSOC contract
  - JSC administers the CSOC contract
  - Technical Management Representatives are at each center
  - 10 year contract awarded to Lockheed Martin Space Operations Company
- NASA Centers have a Center Customer Commitment Manager
  - CSOC provides a Customer Services Director and Customer Service Representative (CSR)
  - Each project is assigned a primary point of contact, usually a CSR
  - CSR works across Centers to integrate customer requirements
  - CSOC and NASA managers will identify and resolve problems, as appropriate



# Service Prices

- Mission Services (Control Centers, Flight Dynamics, Data Processing)
  - Service costs are developed through requirements meetings with projects and determining support required
- Data Services (GN, SN, DSN, WAN)
  - Service prices are generally developed by determining a cost per unit service
  - Based on cost of operating facilities and total utilization of facilities by all customers



# Support to the Proposal Process

- SCDS and CSOC representatives will provide information on services and costs in a timely manner
- Cost information can be provided to support alternative mission scenarios and to support comparison to any non-SCDS sources being considered
- If some requirements cannot be met through standard SCDS services, SCDS will support definition of cost estimates for mission-unique support
- All proposal sensitive information will be held in confidence
- It is NASA policy to utilize operations strategies that yield the lowest life cycle cost the Agency. SCDS-provided services should be utilized whenever they meet mission objectives and represent the lowest life cycle cost.



# Conclusion

- The Customer Commitment Office is ready to assist you in the proposal process

- To get started contact:

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